

ANCIENT SKIES

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THE RIDDLE OF THE STONES

BY GENE M. PHILLIPS, FOUNDER OF THE SOCIETY

Our knowledge of the Incas comes from two main sources - Garcilaso de la Vega and Cieza de Leon. Both wrote first-hand accounts of life in Peru during the years immediately following the Spanish conquest, which culminated in 1532 with the execution by the Spaniards of the last Inca ruler, Atahualpa. (It should be noted that the word "Inca" is used both to refer to the Supreme Ruler of the Empire, as in "The Inca", and to refer to that group of Peruvian Indians known as "the Incas", as contrasted with other groups such as the Chavin, the Mochica, the Nazca, the Ica, the Chimu, etc.)

While the works of both authors deal with the life and times of the Inca rulers, their conquests, and their mode of living; of the people and their customs, agriculture, sciences, art, music, architecture, religion and history; they are written from two different points of view. Cieza de Leon was a Spanish soldier who first went to America in 1533 with a group searching for gold and arrived in Peru in the late 1540s. He was curious, diligent and observant and compiled his Chronicle of Peru based upon the copious notes he took about his observations and discussions with the Indians. (1)

Garcilaso de la Vega was born in Peru in 1539, the son of a Spanish conquistador of the same name and an Inca princess - hence, he is referred to as "the Inca" Garcilaso, not because he was an Inca ruler, but because he was half Indian. The Inca Garcilaso left Peru when he was 21 years old, never to return. He lived in Spain the remainder of his life and he was 70 years old when he published the first book of his Royal Commentaries, completing the work over the next seven years until his death in 1616. Thus, Garcilaso's accounts are based upon his memory of events which he witnessed some fifty years previously, and we are told, upon notes which he took while in Peru. (2)

Shortly after Garcilaso's death, his Commentaries was translated and published in French and some fifty years later, in English. In 1847, the American William H. Prescott published his History of the Conquest of Peru, which was directly based upon the works of Garcilaso and Cieza, quoting liberally from both sources. Prescott's work on Peru, along with his History of the Conquest of Mexico, are still classics today, although based entirely upon the writings of others, rather than upon first-hand investigation. (Prescott was educated as a lawyer, but soon thereafter became almost totally blind.) (3)

In more recent times, Victor Wolfgang von Hagen has assumed the role of the chronicler of the Incas. His books draw heavily on Garcilaso and Cieza, but are also interspersed with his travels in Peru. (4)

It was the Inca Garcilaso who first described the magnificent stone structures of the Incas and coined the phrase that the stones were "so well fitted together that you could not slip the point of a knife between two of them." (5) Garcilaso attributes the building of the Cuzco fortress of Sacsayhuaman to the Inca Tupac Yupanqui (1471-1493), although this is obviously hearsay since Garcilaso was not born until 1539. It is now known that many of the aspects of the Inca civilization which Garcilaso claims originated with the Incas were actually inherited or acquired from much earlier Peruvian cultures. Nevertheless, Garcilaso's comments on the stone-work of the Sacsayhuaman fortress are interesting:

"Its proportions are inconceivable when one has not actually seen it; and when one has looked at it closely and examined it attentively, they appear to be so extraordinary, that it seems as though some magic had presided over its construction; that it must be the work of demons, instead of human beings. It is made of such stones, and in such great number, that one wonders simultaneously how the Indians were able to quarry them, how they transported them to Cuzco, and how they hewed them and set them one on top of the other with such precision. For they were disposed of neither iron nor steel with which to penetrate the rock and cut and polish the stones; they had neither wagons nor oxen to transport them, and, in fact, there exist neither wagons nor oxen throughout the world that would have sufficed for this task, so enormous are these stones and so rude the mountain paths over which they were conveyed.

"...[I]ndeed, such a work defies imagination. And since the Indians possessed no precision instruments, not even a simple ruler, they doubtless had to set these stones on top of one another then set them down on the ground again a great many times before they succeeded in fitting them together, entirely without cranes or pulleys." (6)

Garcilaso then offers his own opinion that the stones were not quarried at all, but that they were "found, one by one, on the land, and transported just as they were, then fitted according to the shape of each one: the convex side of one fitting the hollow of another, and the skewed side of one laid against another of contrary proportions, without there being any need, anywhere, to have recourse to pebbles and stones of lesser dimensions to fill in gaps." (7) Garcilaso bases his theory on the observation that the stones "do not appear to have been cut at all." (8)

But the world-famous explorer, naturalist and ethnographer, Victor W. Von Hagen, some 400 years later, has no problem at all explaining how the Incas constructed the fortress of Sacsayhuaman! In his
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book, Realm of the Incas (9), von Hagen chastises the many writers, including "many archaeologists," who suggest that the "stone-work is attributed to some vague and shadowy anterior civilization called by them the 'Megalithic empire'." Von Hagen says this position has "little archaeological support." His conclusion is a rather puzzling exercise in logic since the position was advanced by "many archaeologists!"

Von Hagen lavishes great praise on the Incas for the enormity of their accomplishments, stating that the Sacsayhuaman fortress is "one of the greatest single structures ever reared by ancient man," and "although such monoliths be as much as 20 tons in weight and variously shaped, they were made and fitted easily without cement,...."(Emphasis added)

According to von Hagen, the Incas did it with their little stone-celts (stone tools shaped like a chisel or axe head)! He acknowledges that "working stone with stone-celts hinges on the marvelous," but that "shaping stone with stone was universal and should occasion no surprise, nor is there the need of a fantastic explanation of how the Inca craftsmen worked large rock masses."

While Garcilaso marvelled at how the Indians could transport the huge boulders over the "rude mountain paths," von Hagen says simply: "Transport of stone was by manpower...he used wood and stone rollers, and the rock in the rough was pulled by ropes with manpower." At least he did not suggest that the laborers poured milk on the ground to lubricate the path, as one writer opined was done in building the Egyptian pyramids. (10)

As to how the Incas attained the precision they did, von Hagen explains that the Inca craftsmen had a long heritage in stone-working, which he says they inherited from the pre-Inca culture of Tiahuanaco. (It should be recalled that earlier in his book he ridiculed the idea that Sacsayhuaman might have been built by a pre-Inca culture). Von Hagen concludes that the Incas achieved such precision in their stone-working because "they had an aesthetic feeling for the quality of stone." (11) (Emphasis in original)

A few years later in his book The Ancient Sun Kingdoms of the Americas, (12) von Hagen writes in the caption following page 291:

"How the Inca mason achieved precision like this is still largely a mystery (referring to photographs of stone work at the fortress of Sacsayhuaman and a wall in Cuzco). The sheer scale is astonishing-one stone in the fortress is 27 feet high and weighs 200 tons. Somehow the Inca engineers, with only stone hammers and axes, bronze chisels, sand abrasives and wooden crowbars and rollers, managed to quarry these monsters, shape them, transport them distances ranging from nine to twenty miles, and finally place them exactly in position, lifting and setting them down a hundred times until they fitted perfectly on all their sides. No mortar is used, yet there is not a crack for the thinnest blade to be inserted."

Shades of Garcilaso! This theory is patently ridiculous. Some of the stones have as many as 12 surfaces to be joined snugly with their neighbors, and it often occurs that larger stones appear in the wall above much smaller stones.

Being half Inca, Garcilaso was prone to credit his people with accomplishments they had usurped from others, but if the Sacsayhuaman fortress was built by the Incas in the mid to late 15th Century as Garcilaso has reported, then surely all knowledge of how this fantastic feat was accomplished would not have been entirely forgotten less than 100 years later while the Incas were still a cohesive culture. Therefore, we must conclude, as is accepted today, that we do not know when Sacsayhuaman was built, or by whom.

Von Hagen's explanations are pure conjecture. He has no proof whatever. He concludes that because stone-celts were found at some sites in Peru, they were the tools used to fashion the incredible stone-work. This does not logically follow, because such crude tools could have been used at any time before or after the gigantic structures were built.

In 1977 and 1983 I had the opportunity to visit Peru on Member Expeditions arranged by the Ancient Astronaut Society, and spent some time in the Cuzco area. I experienced the same feelings of awe and incredulity as did Garcilaso over 400 years ago when he saw Sacsayhuaman. I could have imagined, as did von Hagen, a crew of diligent Indians, with crowbars and rollers and stone chisels and hammers, straining and tugging and lifting and fitting the multi-ton stones into a precision, jigsaw-puzzle-like impregnable fortress wall. But there is absolutely no evidence, much less proof, that it happened that way.

I have examined the stone-work of Peru at the fortress of Sacsayhuaman, in the walls of the city of Cuzco, at Ollantaytambo and at Machu Picchu and I have observed one important factor peculiar to the jigsaw-puzzle type construction which is attributed to the ancients - that the stones are not simply fitted together with snugly-fitting, smooth faces, but that in many cases they are interlocking. The stones have been deliberately shaped to tie together to give support; not merely by one stone resting upon another, but by shaping each stone in such a fashion so that each surface of every stone gives structural support and stability to its neighbor. This is not by accident, but by design. How else could a stone wall perched atop a mountain peak have remained intact and withstood the ravages of storms and earthquakes for hundreds or thousands of years?

It is granted that stone walls are built today in the manner suggested first by Garcilaso and later by von Hagen. The mason begins with a pile of stones of various shapes and sizes, selects the larger ones for the first course, then begins a slow and painstaking selection of stones to roughly match the faces of the ones already placed. Of course a thick layer of mortar is used to bind the stones together and the result is a sturdy, pleasant appearing wall of stones that seem to fit together. We are asked to believe that the same method was used in constructing the walls of Sacsayhuaman - hunt and fit and shape, until each stone perfectly fits every adjoining stone to such tolerances that the proverbial knife blade cannot be inserted! Add to this the fact that many of the stone walls in Cuzco contain stones with bevelled edges (for "artistic effect", according to von Hagen!). Further, in some walls at Cuzco the smallest stones are located in the first course at the very bottom of the wall.

The physical evidence of the stone-works of Peru does not admit the use of a "hammer and chisel" and "hunt and fit" technology. I agree with Garcilaso that the stones "do not appear to have been cut at all." I think they were moulded! It is apparent to even the most casual observer that the stones must have been worked while soft. Either a technique was used to soften the face of a stone and impress it with the soft face of another stone to form the union, or the stones were manufactured from a concrete-like material that was shaped or moulded and then allowed to harden into stone. The use of the bevelling technique certainly indicates that a soft mixture was used, and when almost hard, the edges were worked with a smooth, damp instrument. Bevelling is used, of course, not primarily for artistic effect, as von Hagen suggests, but to smooth and harden the edges to prevent chipping and crumbling.

At Ollantaytambo, I examined some stones which had fallen, or had been removed, from a jigsaw-puzzle type wall and I was astonished to discover that the stones had been shaped to fit snugly on the entire

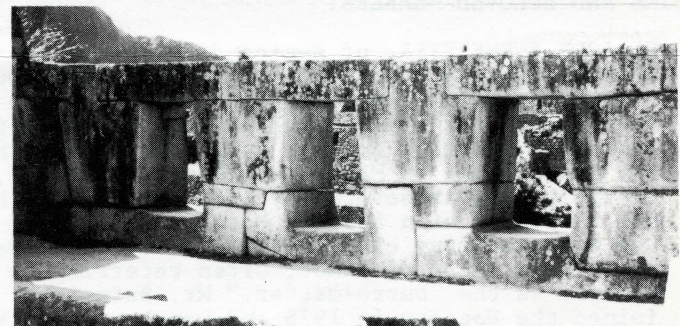
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 surface of each plane of the stone, and not only on the edges of the polygonal face. The stones are multi-dimensional, with protuberances and indentations in the various faces of the stone to match the indentations and protuberances of another face of an adjoining stone. These interlocking surfaces are not visible from the outer surface of the wall.

With the application of computer technology to the operation of machine tools, we are able to produce multi-dimensional parts, machined to the closest tolerances. It is not too far-fetched to imagine that the ancients utilized computer technology to produce the moulds for the stones, or to direct the machining of the hundreds of thousands of faces of the stones so that each multi-faced boulder would fit perfectly with every adjoining piece to such close tolerances that "you could not slip the point of a knife between two of them."

Notes:

- (1) La cronica del Peru, by Pedro de Cieza de Leon, in several languages since 1553.
- (2) The Incas, by Garcilaso de la Vega, edited by Alain Gheerbrant, published in English by Avon Books, New York (1964).
- (3) The Conquest of Mexico and The Conquest of Peru, by William H. Prescott available in one volume from The Modern Library, New York.
- (4) Victor W. Von Hagen has published many books on Peru, including Highway of the Sun, Realm of the Incas, The Desert Kingdoms of Peru, and The Ancient Sun Kingdoms of the Americas.
- (5), (6), (7) & (8) The Incas, pp 284 to 287.
- (9) Mentor Books, New York (1957)
- (10) L. Sprague de Camp, in The Ancient Engineers, published by Ballantine Books, New York (1974), at page 31. First published in 1960.
- (11) Realm of the Incas, p 166.
- (12) Paladin Books, published by Granada Publishing Limited, London (1973). First published in 1962 by Thames & Hudson, Ltd., London.



PHOTOS:

- Left top - wall in Cuzco showing small stones on bottom course.
- Left bottom - stone with twelve adjoining surfaces in wall at Cuzco.
- Above - First two are walls in fortress at Sacsayhuaman; third is wall at Ollantaytambo; bottom is wall of "Tres Ventanas" (three windows) at Machu Picchu.

All photos taken by the author.

BOOK REVIEW:

THE WARS OF GODS AND MEN

By Zecharia Sitchin, published as an Avon original in paperback by Avon Books, New York

This is Book III of Zecharia Sitchin's The Earth Chronicles, which relate the story of extraterrestrial arrivals on Earth some 450,000 years ago from a planet in our solar system, the existence of which has yet to be proved, although NASA is currently looking for a "mystery body" beyond the planet Pluto. Called "Nibiru" by the Sumerians and "Marduk" by the Babylonians, the planet has an elongated elliptical orbit which takes it around our Sun every 3600 years. According to the author's calculations, Nibiru-Marduk can be expected to return to the vicinity of Earth in about 3400 AD.

Book I, The 12th Planet and Book II, The Stairway to Heaven have been tremendously popular. Both books are available in paperback from Avon. All three can be read independently.

Book III, The Wars of Gods and Men is a continuation of the story of the arrival of the Nefilim (Anunnaki) on Earth and their exploits, both in the areas of bringing culture and civilization to Earth and in their jealousies, hatreds, loves and battles, with the last involving themselves and later their creation, mankind, in terrible aerial and land wars.

Wars brings the story down to 2024 BC when the Anunnaki destroyed Earth's civilization in a nuclear holocaust. It would seem that the descendants of the "gods" are still waging their internecine conflicts to gain control of this small, insignificant piece of real estate that we call "Earth."

Zecharia Sitchin is a biblical scholar, a linguist and a near east specialist. His books are the result of intensive research into Sumerian, Akkadian, Assyrian, Babylonian, Hittite and Hebrew texts, yet are presented to the reader in a language and style that can be understood and enjoyed.

Mr. Sitchin was featured on a segment of the national television series "In Search Of..." and has been a principal speaker at many World Conferences of the Ancient Astronaut Society. He will present a lecture at the Society's 12th Anniversary World Conference in Zurich in September 1985.

We look forward to future books of The Earth Chronicles.

WE REGRET TO ANNOUNCE THE DEATH OF TWO OF OUR LONG-TIME AND BELOVED MEMBERS:

ENRIQUE BURMEISTER, of Mexico died on May 20, 1985 at the age of 79. Mr. Burmeister, the founder and Director General of ABC Travel Service in Mexico City for many years, handled the arrangements for the many Ancient Astronaut Society Member Expeditions to Mexico and Central America, participating in several of them personally. He was a speaker at a Society Meeting in Chicago and attended many of our World Conferences. He had a keen sense of humor, often referring to himself as the "burro-master." Mr. Burmeister joined the Society in 1975 and was honored with Life Member status for his dedicated service.

AJIT DUTT, of India died on February 10, 1985 at the age of 69. A science graduate of the Calcutta University, Mr. Dutt began his career as a science teacher and then entered the field of advertising. He was the translator of Erich von Daniken's books into the Bengal language, which resulted in von Daniken's enormous popularity in India. He also translated Josef Blumrich's books into Bengali. Mr. Dutt joined the Ancient Astronaut Society in 1975 and recently founded the Daniken Research Society in Calcutta and served as its President.

MEMBER EXPEDITION TO USSR

Due to the terrorist activities, the Society's Member Expedition to Turkey and Greece scheduled for the fall of 1985 has been cancelled, and we are making arrangements for the same time for an Expedition to the Soviet Union immediately following our 12th Anniversary World Conference in Zurich in September. The tentative schedule follows:

Sept. 17, Tuesday, depart Chicago O'Hare on Swissair Fl. 129.

Sept. 18, Wednesday, arrive Zurich, Switzerland.

Sept. 19, Thursday, sightsee in Zurich.

Sept. 20, 21, Friday and Saturday, attend 12th Anniversary World Conference at Hotel Nova Park, Zurich. Gala Banquet on Saturday evening.

Sept. 22, Sunday, free day with opportunity to visit Zurich environs and Lucerne.

Sept. 23, Monday, depart Zurich on Swissair Fl. 490 for Moscow, USSR.

Sept. 24 through Oct. 3, ten days to visit Moscow and Leningrad and their environs. Detailed itinerary to be arranged.

Oct. 4, Friday, depart Moscow on Swissair Fl. 493 for Zurich and overnight.

Oct. 5, Saturday, depart Zurich on Swissair Fl. 124 for Chicago O'Hare. Arrive 3:45 PM.

Members may participate in the entire program or may participate only in the Switzerland portion, or only in the USSR portion. Those wishing not to attend the Conference may join the Expedition in Zurich on Monday, September 23. Prices and details will be available soon; however, anyone interested in participating should phone or write to the Society headquarters immediately - time is short!

THE ANCIENT ASTRONAUT SOCIETY now has members in all fifty of the United States of America and in 76 countries of the world.

PETER and JOHANNES FIEBAG have published a new book in German entitled: Aus Den Tiefen Des Alls - Handbuch zur Pra-Astronautik - Wissenschaftler auf den Spuren extraterrestrischer Eingriffe. The book is available from Hohenrain-Verlag Tubingen, West Germany. The English translation of the book is: From the Depths of Space - The first scientific handbook of the Ancient Astronaut Hypothesis. The Handbook is divided into four parts: The Theoretical Basis, The Concrete Research, Critical Notes and Outlooks and Possibilities. The Handbook is a compilation of many articles on the subject by scholars and investigators throughout the world, including Dr. Luis Navia, Dr. Philip Ianna, Dr. Harry O. Ruppe, Dr. Vladimir Avinsky, Dr. Khalil Messiha, Dr. Dileep Kanjilal, Dr. Friedrich Egger, Dr. Hans Schindler Bellamy, Dr. Carlos M. Bandeira, Dr. Petr Bohac, Dr. Vladimir Rubtsov, Dr. Jury Morosov, Dr. Pasqual Schievella, Dr. Hermann Oberth, Dr. Duncan Lunan, Dr. Robert Freitas, Dr. Fred Hoyle, Dr. Changra Wickramasinghe, Dr. Francis Crick, Reinhard Habeck, Peter Krassa, Walter Garn, Laszlo Toth, Josef F. Blumrich, Rex Gilroy, Rudolf Kutzer, Ulrich Dopatka, Jorg Langbein, Gene M. Phillips, Erich von Daniken and the authors themselves. We look forward to an English translation of the handbook.

ERICH VON DANIKEN's latest book is now available in German from C. Bertelsmann, entitled Habe ich mich geirrt? Neue Erinnerungen an die Zukunft.

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